

[OT 15] RELATIONSHIP OF ORGANIC FARMING WITH HALALAN TOYYIBAN

Noor Azian Binti Mohamad¹ & Quamrul Hasan²

¹⁻²*School of Technology Management and Logistics, College of Business, Universiti Utara Malaysia, 06010 UUM Sintok, Kedah*
noorazian0302@gmail.com¹, Quamrul@uum.edu.my²

ABSTRACT

Everyone wants to consume safe and healthy foods. Also, the producers want to position their produce/product according to the market demands. However, our understandings on the terminologies describing and classifying the different production process are not clear and well documented. Therefore, the purpose of this research is to understand the popular terminologies-organic, and halalan toyyiban, and find out the relationship between them. We hypothesize that there might be some common characteristics between halalan toyyiban and organic farming. The findings might help both the consumers in selecting the produce/product and business people in promoting their products. In this, the method used is a qualitative research design. Sampling of data collection is used mainly by face-to-face interviewing of six persons involved at the farm and the secondary data as well. Research informants are farmers, volunteers, and student from the Sri Lovely Farm, a government-certified organic farm at Sik, Kedah. The research reveals new insights on the relationship of characteristics of organic farming with halalan toyyiban. The three commonly found characteristics are: 1) quality; 2) healthy; 3) natural/environmental friendly. Using the findings we are proposing a model on the relationship of organic farming with halalan toyyiban. This study is a first of this type and undertaken as an exploratory research; therefore, further study should be conducted to obtain more understanding and knowledge on this subject.

Keywords: *organic farming, halalan toyyibban, organic food, Halal food, environment friendly, relationship*

INTRODUCTION

Organic farming means the original, natural, unpolluted and attributes of agricultural products that can be safely used every day as well as free of chemical pesticides and insecticides. While, organic farming means about defined as a holistic management system of food production, which promotes and improve the health of agricultural ecosystems through farming, animal husbandry, and forestry, including biodiversity, biological cycles and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. Organic farm also adopts the materials in the area of the environment as a source of plant nutrients such as composting agricultural waste and livestock. To ensure that the technology of organic farming is well developed, the Ministry of Agriculture has taken a variety of approaches to introduce organic farming technologies in Malaysia. Among the technologies applied in organic farming such as microbial cast of bamboo trees known as IMO (Indigenous

MicroOrganism) and cast microbes from ruminant animals known as BIM (Beneficial Indigenous Microorganism) and Vermicompost technology. The use of BIM and IMO implies only to distinguish the two methods and sources of microbial exposure is different and depends on the access rights of farmers to select them according to local conditions as well as the ability to obtain such materials. Furthermore, the farmers should emphasize on the concept of halalan toyyibban in organic farming because the good food comes from good resources. For example, in Malaysia, System of Rice Intensification (SRI) is a way to manage organic farming. In the context of SRI management, SriLovely Farm at Sik, Kedah, which is the area/field in this study, is the first and only certified organic farm in Malaysia since 2013.

For Muslims, halal food in organic farming can be related with the statement in Al-Quran:

وَالْبَلَدُ الطَّيِّبُ يَخْرِجُ نَبَاتَهُ، وَالْبَدِئُ خَبَثٌ لَا يَخْرُجُ إِلَّا
نَكِذَا كَذَلِكَ نُصَرِّفُ الْآيَاتِ لِقَوْمٍ يَشْكُرُونَ ﴿٥٨﴾

58. The vegetation of a good land comes forth (easily) by the Permission of its Lord, and that which is bad, brings forth nothing but a little with difficulty. Thus do We explain variously the words (proofs, evidences, verses, lessons, signs, revelations, etc.) for a people who give thanks. (Al-A'raaf 7:58)

This research aims to understand about meaning of organic farming, and halalan toyyiban and find out the relationships based on the common characteristics of these two. The key research questions to be addressed in this exploratory study are: 1) what is our understanding about the organic farming, and halalan toyyiban? 2) what are the inter-relationships between organic farming and halalan toyyiban based on the common characteristics?

LITERATURE REVIEW

Allah SWT requires every Muslim to take the food which is was halal and has both mineral and vitamin content necessary for the human body. The two aspects of halalan toyyiban and quality are inextricably linked to one another due to the existence of this relationship: humans not only can ensure on the physical health but also be a key driving factor which helps to improve the life quality. This has been clearly mentioned in sentence 172 of Chapter Two (Al-Baqarah - The Cow) in the holy Qur'an.

Halalan Toyibban

In the broadest sense, Halal describes living requirement of Muslims who are concerned with aspects of halalan tayyibban, namely permissible purity, hygienic practices and healthy life (Mohamed Jusoh, 2001; Haji Halim Ahmad, 2001). Halal is in Arabic word which says essentially that halla, yahillu, hillan which carries the meaning of release, discharge, solve, disperse and allow (Abdul Aziz et al., 1997). Halal is also defined as a law that justifies to do (in Islam) and allowed that it is not contrary to law. (Kamus Dewan, 2005. Halal means permitted, while something forbidden is haram (Qal'ahji, 1996; Ibn Mandzur, t.t.; Al-Amidi, 1980).The concept of halal needs to be confirmed

by the presence of the word Tayyib which who brings good intentions, useful and beautiful in terms of habits and syarak. (Ibn Kathir in Tafsir Ibn Kathir). Tayyiba include two things, namely about the physical and the spiritual are in line with sharia, not contradictory and accompanied with sincerity to Allah SWT. In essence, the word Tayyib is a manifestation of the concept of Ihsan and Itqan (Efficient and Orderly Manner). Therefore, the quality or the estimated value is things cannot be assessed in isolation but must take into account the production process, the ways and the impact on its use. Sources who have properties that halalan toyibban source of clean substance, method of placement pure and free from any harm. This is because the source is lawful and well able to form one's personal skills and lead to the formation of the 'ummah'. In fact, as Muslims, we should ensure a source of food and beverages was lawful and meets the dietary guidelines of Islamic law (al-Baqarah 2: 168). Not only Muslims must to take about halal food, but all people must take care and make sure the source of food received by the body has properties that are good for health and free of chemicals that can be harmful to health.

Farming concept

Agriculture is a part of the agro-ecosystem which cannot be separated from the human aspect and the health, environmental and cultural tangled in a production process for the source of human life (Karwan A. Salikin,). According Sanganatan (1989), general provisions "farm" is defined as an activity of land planted with crops for bringing the results to them. Agricultural activity is human intervention to the native plants and the life around him. Agriculture is one of the production activities based on the growth of plants and animals. at first there was a response that says the origins of agriculture in the world starting from southeast asia happens when humans began to take a chance in the activities of plants and animals based on human needs and this is seen when humans began domesticating the hunting, agriculture primitive, traditional agriculture and modern agriculture (Admin UPI, 2012). Nowadays, farming method is very most farmer used is conventional farming and organic farming.

Conventional farming

Commercial farming requires knowledge of biotechnology which can improve the quality and resilience of the agricultural products to be durable and nonperishable because genetic manipulations can be performed on plant products to avoid the plant to be destroyed by insect pest. Commercial agriculture is strengthened further by the Agricultural Research and Development Institute of Malaysia (MARDI), which focuses on the field of biotechnology to produce new seeds to help farmers cultivate farming modern them. (Datuk Mohd. Effendi Norwawi, 2000). Commercial farming using high technology have caused the cost spent to buy equipment machinery to farm land is very high in addition to the procurement of high-quality seed is also very expensive Instead, the cost of fertilizer and pest control using chemicals also increase the cost of agricultural production. Application of conventional farming in the early stages was able to increase agricultural productivity including food significantly. However, production efficiency decreases due to the influence of the feedback variety of adverse side-effects of commercial agricultural products can prejudice of country economy.

Organic farming

The British botanist, sir Albert Howard often was a called "the father of modern organic agriculture" studied traditional farming practices in West Bengal, India. Now prospects for organic farming has a very good chance and bright because of higher consumer

awareness of the food sources of healthy and nutritious start of production of these foods. Organic agriculture is a production system that does not use chemicals (non-synthetic), pesticides, herbicides and only use 100% natural materials (Pracaya, 2002, USDA). Organic farming can yield results in materials that are very nutritious, healthy, without chemicals, and do not adversely affect the environment. In organic farming systems approach that natural ecosystems as a model that emphasizes the natural fertility of the soil and protection all ready. There are four principles that are central to organic farming, namely health, ecology, fairness and protection. These principles serve as a guide for the development of positions, programs and standards of the International Federation of Organic Agriculture Movements (IFOAM).

Halalan Toyibban and organic farming products

Halal organic farming because the process and materials used in this method is that all of the natural resources and natural without using processes or materials that have chemicals that can harm the health of consumers. source of the lawful and good food is a source of food that contains a lot of features and is also good for health. God basically created all that is on earth lawful unless there is danger in it, God forbid. The Word of God in (Surah al-Baqarah, 2:29) which means that He (Allah) Who created for you all that is on earth, and then he headed towards his (materials) of the heavens, and made them seven heavens perfect; and He knows everything. Allah has made it obligatory on all Muslims to take lawful (halal) and a good quality of minerals and vitamins as needed. Tayyib as high as the standard of the goods or products. In this case, Al-Sonhadji (1992) said: "" Allah commands believers to eat food that is good and holy which Allah has provided and be thankful if they really worship Him. "Good and authentic food is divided into two categories:

- a. Good and pure in quality.
- b. Good and holy because it is halal.

METHODOLOGY

This study employed a qualitative research using the face-to-face interview and secondary data approaches. The interviews were conducted on six respondents who allowed the interviews to be recorded. Later, to follow up, phone was used to obtain clarity of information from the respondents. The location of this field study was at Sri Lovely Farm, Sik, Kedah which is owned by the Koperasi Agro Belantik Berhad. The interviews were conducted with the managing director (Farmer 1), his two assistants (Farmer 2 and Farmer 3), Volunteer (Farmer 4), and intern by visiting the farm on October 24, 2016 from 4.00 p.m to 8.00 p.m (4 hours).

Data analysis

Traditional and computer-based qualitative methodologies were used to analyze the data for emerging themes and to compare and contrast the observation obtains from the participants. The method of analysis as suggested by Strauss and Corbin (1990) was used in the data analysis. All data were first reviewed and then categorized. The analysis of organic paddy relating with the halalan toyibban gave four major characteristics for each: halalan toyibban (quality, healthy, clean, natural); organic farming (healthy seed, land/soil quality, natural fertilizer, natural insect control).

RESULTS AND FINDINGS

Characteristics of halalan toyyibban

Quality

To the muslims, there is an additional need for food quality assurance in that only food deemed as halal is fit to consumed (Mohani, Hashanah, Haslina and Juliana, 2009). Quality is defined as the overall excellence or superiority that consumers perceive from a product or service (Zeithaml, 1990). Quality can be defined as “fitness for use” or more appropriately for foodstuffs is; “fitness for consumption”, which leads to what experts in ISO standard called customer or consumer satisfaction. Thus, quality can be described as requirements necessary to satisfy the needs and expectations of the consumers. In halalan toyyiban, quality is very important for organic farming especially for soil and seed.

Quality management practices such as adopting halal certification can boost customer's confidence and hence can lead to their satisfaction. Halal certificate is known for its beneficial characteristics which are not only to be enjoyed by Muslim consumers but also by non-Muslims. Additionally, implementing halalan toyyiban requirements will produce better quality food products compared to those that only implement the conventional standards. The soil and water in organic farms generally contain low pesticide remnants and the absence of hazardous chemicals from pesticides avoids killing non-harmful insects and flora. Biodiversity is important to an ecosystem because it encourages the diversity of species and genes and thus balances the predominance of the growing crop. A system with the coexistence of diverse species tends to yield better quality of crops. Apart from the preservation of biodiversity, organic farming also improves the quality of soil due to presence soil organic matter (SOM), organic nitrogenous compounds, which are essential for soil to produce high-quality crops.

Healthy

Halalan toyyibban food is very health conscious food. In Islam, food toyyiban halalan is good for physical and spiritual development as it fulfills God's command. The fact of the matter is, the Islam that is very similar to any other consumer segment, demanding a healthy and quality products. In organic farming, the view that organic farming are ‘healthier’ than conventionally produced product (rice) appears to be based on the perception that organic farming have superior sensory attributes, no have pesticides and synthetic fertilizers and have higher levels of nutrients and protective phytochemicals. Conversely, it has also been suggested that application of manure and reduced use of fungicides and antibiotics in organic farming could result in a greater contamination of organic foods by microorganisms or microbial products.

Clean

Cleanliness is important in the processing of agricultural halalan toyyiban. Clean manufacturing processes and the preparation process. Cleanliness in organic farming especially in terms of making the fertilizers for the paddy growth to thrive.

Natural

Natural as a concept organic farming is important to relate with halalan toyyiban. In natural/organic farming, chemicals are not used, therefore, the quality of soil is not damaged. Natural/organic farming uses “ubi gadung”, “batawali”, cow dung, goat dung and so on, which comes from natural sources.

Characteristics organic farming

Healthy paddy seed

The seeds that used in Sri Lovely Farm has a very good quality because it has a density of seed supply brine to choose pithy seed to produce rice and sowing in the container for 4 days before being planted on the ground and the seeds are also free of GMO. The concept of the rice seed selection has some way to maintain its quality. This is consistent with the concept because the concept of halalan toyyiban stating the word 'holy' came from the initial rate of rice seed was produced.

Key differences between conventional and organic (Sri Lovely Farm) farmings		
Key practices	Conventional	Sri Lovely Farm
Seed preparation	Seed not selected	Seed selected: Seeds soaked for 24 hours prior to sowing to eliminate non-viable ones
Nursery management	Flooded, densely seeded	Not flooded, raised beds, not densely seeded
Quality of seedling at transplant	All kinds of seedlings	Only thick, health seedlings transplanted

(Taken from a book: Replacing chemicals with biology: phasing out highly hazardous pesticides with agroecology, page 91)

Fertilizers

Fertilizers used in organic farming in Sri Lovely Farm using 100% natural ingredients locally, where the fertilizer is organic fertilizer types entirely. Instead, farmers in Sri Lovely Farm heavy drip knowledge to make organic fertilizer inside a farmers that organic fertilizer from natural sources that is around Sri Lovely Farm can be produced well. The resulting organic fertilizers have also been associated with the product features halalan toyyibban. This is because the fertilizer produced from natural sources, namely materials that are clean and safe for human use. This is in line with the concept of halalan toyyibban who describes living arrangements Muslims who are always concerned with aspects of halalan tayyibban, namely purity, hygiene practices and healthy life as well as halal (Mohamed Jusoh, 2001; Haji Halim Ahmad, 2001). Fertilizers used in Sri Lovely Farm produced from rice straw and fruit waste for the soil and can be processed at any time just because of the fertilizer.

“Original seed instead of the modified seeds. The original seeds are hereditary which, when we planted the seeds can later use to return to replanting”.

(Farmer 4, personal communication, 7.38 p.m., October 24,2016)

Quality of soil

The quality of the soil in Sri Lovely Farm always have tested by the Department of Agriculture by means of soil samples taken were taken to the laboratory for chemicals or not in order to maintain soil quality there.

“Our soil was often taken to be used as a sample, enter the lab. From there, we could know the soil contains heavy metal or not.”

(Farmer 1, personal communication, 5.05 p.m., October 24,2016)

The quality of good land can produce rice of high quality in the side, creating a balance of the ecosystem is good for the environment. Halalan toyyibban available with the principles to protect the interests of a clean environment substance, method of placement that is holy and free from any harm. Quality of soil included macronutrient

are carbon (C), hydrogen (H), oxygen (O), Potassium (K), calcium (Ca), magnesium (Mg), sulfur (S), Phosphorus (P) and nitrogen (N). Elemental carbon, hydrogen, oxygen and nitrogen can be obtained over the air and water while elements such as potassium, calcium, magnesium and sulfur are usually given to the plants through fertilization. Fertility of the soil is very important in determining the increase in production yield.

Control of insect

Insect control practiced by Sri Lovely Farm is a natural concept that is free from chemicals that can damage the rice plants. According to the founder of the Sri Lovely Farm, insect of control that is used to keep the rice there was the homemade natural shades.

“How do you control the insects, we have own methods, so how we want to control of caterpillars, we use 'ubi gadung', so, we use the concept of traditional people, back to nature.”

(Farmer 1, personal communication, 5.00 p.m., October 24,2016)

As evidence, according to the founder of the Sri Lovely Farm, insect control is the control over the ‘ubi gadung’ and rice worm uses batawali or better known as 'akar seruntun' that serves as a control ‘sianggam’ against which suck paddy milk. Without chemicals made rice received a higher quality and better. This is in line with the concept of halalan toyibban emphasizing a food source must come from sources that are safe to use.

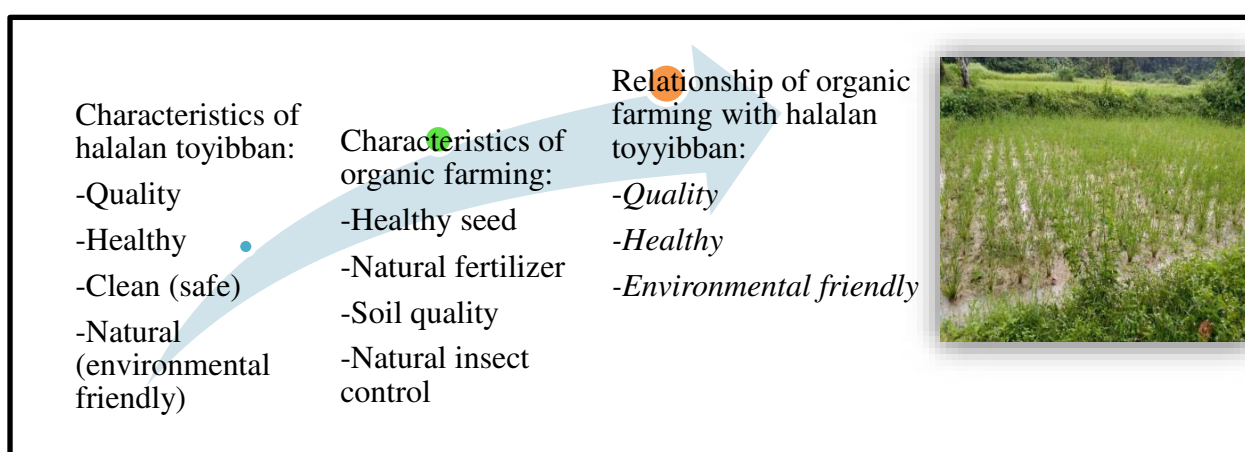


Figure 1

A proposed model of relationship of halalan toyibban with organic farming

DISCUSSION

The British Journal of Nutrition study was led by scientists at Newcastle University in the United Kingdom, with Benbrook helping design the study, write the paper and review the scientific literature, particularly on studies in North and South America (<https://news.wsu.edu/2014/07/11/major-study-documents-benefits-of-organic-farming/> #.U8 Ak H41dXA3).

In general, the team found that organic crops have several nutritional benefits that stem from the way the crops are produced. A plant on a conventionally managed field will typically have access to high levels of synthetic nitrogen and will marshal the extra

resources into producing sugars and starches. As a result, the harvested portion of the plant will often contain lower concentrations of other nutrients, including health-promoting antioxidants.

Without the synthetic chemical pesticides applied on conventional crops, organic plants tend to produce more phenols and polyphenols to defend against pest attacks and related injuries. In people, phenols and polyphenols can help prevent diseases triggered or promoted by oxidative damage, like coronary heart disease, stroke and certain cancers.

Overall, organic crops had 18 to 69 percent higher concentrations of antioxidant compounds. The team concludes that consumers who switch to organic fruit, vegetables and cereals would get 20 to 40 percent more antioxidants. That's the equivalent of about two extra portions of fruit and vegetables a day, with no increase in caloric intake.

The researchers also found pesticide residues were three to four times more likely in conventional foods than organic ones, as organic farmers are not allowed to apply toxic, synthetic pesticides. While crops harvested from organically managed fields sometimes contain pesticide residues, the levels are usually 10-fold to 100-fold lower in organic food, compared to the corresponding, conventionally grown food.

"This study is telling a powerful story of how organic plant-based foods are nutritionally superior and deliver bona fide health benefits," said Benbrook.

In a surprising finding, the team concluded that conventional crops had roughly twice as much cadmium, a toxic heavy metal contaminant, as organic crops. The leading explanation is that certain fertilizers approved for use only on conventional farms somehow make cadmium more available to plant roots. A doubling of cadmium from food could push some individuals over safe daily intake levels.

From the previously study results, as mentioned above, we can say that atleast three characteristics of organic farming are found which could be related with halalan toyyiban. These are: 1) healthy ("organic plants produce antioxidants"); 2) quality ("10 to 100 times fewer pesticide residues"); 3) safe ("10 to 100 times fewer pesticide residues").

To the best of our knowledge, this study was the first attempt to relate halalan toyyiban with organic farming. Therefore, enough information was not available in the published form especially when it was about to establish the relationship between the halalan toyyiban and organic farming though it was possible to collect some materials relevant which were found separately under halalan toyyiban, and organic farming. By combining our findings obtained from both primary and secondary data, we have been able to come up with three common characteristics found thus showing the significant inter-relationships among halalan toyyiban and organic farming. These are: 1) quality; 2) healthy; 3) environmental friendly (natural). This is further illustrated in the figure 1.

CONCLUSION

To conclude, there exists a significant relationship between the integral part of the principles of halalan toyyiban and practices of organic farming. At least three commonly found characteristics are: 1) quality; 2) healthy; 3) environmental friendly (natural). This should help in the value proposition of the both kind of produce and products to all consumers regardless of the faith in a particular religion. Furthermore, Malaysia should be able promote and enter in to the emerging global market on the both sectors-Halal and Organic-with its own produce and products.

REFERENCES

- Abdul Aziz Dahlan, et.al. (1997). *Ensiklopedia Hukum Islam*. (Jld. 2). Jakarta: PT Ichtiar.
- Ahmad Sonhadji Mohammad, 1992, Tafsir al-Qur'an Ibru al-Athir, Kuala Lumpur, Pustaka Mizan.
- Al-Amidi, Saif al-Din Abu al-Hasan Ali Ibn Abi Ali Ibn Muhammad, 1980. *Al-Ahkam fi Usul al-Ahkam*. Juz.1. Lubnan: Dar Kutub al-'ilmiyyah
- Al-Qur'an al-Karim.
- Halim Ahmad. (2001). Penyembelihan dan pemburuan: Antara Tuntutan Syara' dan Sains. *Jurnal Penyelidikan Islam*, 14, 89-98.
- Ir. Ahmad Sulaeman,(USDA) (2007, November 2). Prinsip-Prinsip Pertanian Organik. [Online] Available: <https://core.ac.uk/download/pdf/32363536.pdf>
- Kamus Dewan*, 2005. Edisi Ke-3. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Karwan. A. Salikin, 2003. *Sistem Pertanian berkelanjutan*. Kanisius Yogyakarta. [Online] Available: https://books.google.co.id/books?id=XfGjtRE69yQC&pg=PR3&hl=id&source=gbs_selected_pages&cad=2#v=onepage&q&f=false
- Minister of Finance Incorporated. (2016). Halal Industry Development Corporation - Halalan Toyyiban. *Halal Industry Development Corporation - Halalan Toyyiban*.
- Mohamed Jusoh. (2001). Halal Haram in Food Ingredients. *Jurnal Penyelidikan Islam*, 14, 99-112.
- Mohani, A. , Hasanah, I., Haslina, H.Juliana, J., (2008). SMEs and halal certification. ECER Regional Conference 2008, UiTM Kelantan.
- Muhamad Rahimi, O., Emi Normalina, O. Harlina Suzana, J. (2013). Halalan Toyyiban Supply Chain of the Food Industry. *Journal of Emerging Economies and Islamic Research*, 1(3), 1-12.

Sanganatan (1989). Pertanian Tradisional, konvensional Dan Berkelanjutan. *Pertanian Tradisional, konvensional dan Berkelanjutan*. Kennardy Dewanto, 22 Sept. 2012. Web. 10 Oct. 2016.

W. Meril, W. Stephanie (2015). *Replacing Chemicals with Biology: Phasing out highly hazardous pesticides with agroecology*.

Zeithaml, V.A., Parasuraman, A. Berry, L.L (1990). *Delivering Quality Service: Balancing Customer Perception and Expectation*. The Free Press, New York.